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Committee on the Peaceful Uses of Outer Space
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Draft report

Addendum

Chapter II

Recommendations and decisions

D. Space and sustainable development

1. The Committee considered the agenda item entitled "Space and sustainable development", in accordance with General Assembly resolution 68/75.

2. The representatives of Canada, Egypt, Germany, India, Iran (Islamic Republic of), Japan, Mexico, Pakistan, the Republic of Korea, Romania, the United States and Venezuela (Bolivarian Republic of) made statements under the item. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

3. The Committee had before it a conference room paper entitled "Update on the recent developments in the context of the United Nations Conference on Sustainable Development and the post-2015 development agenda" (A/AC.105/2014/CRP.15).

4. The Committee heard the following presentations:

(a) "Indian experience in the use of Earth-observation inputs for resource consideration and development planning", by the representative of India;

(b) "The effect of the criterion value of single-entry interference on the efficiency of use of the geostationary satellite orbit resource", by the representative of the Russian Federation;

(c) Space infrastructure development for social needs, by the representative of Mexico.

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5. The Committee recalled paragraph 274 of the outcome document of the United Nations Conference on Sustainable Development, entitled "The future we want", (General Assembly resolution 66/288, annex) in which the Conference had recognized the importance of space-technology-based data, in situ monitoring and reliable geospatial information for sustainable development policymaking, programming and project operations.

6. The Committee noted the value of space technology and applications and space-derived data and information in contributing to sustainable development, including in the areas of land and water management, marine and coastal ecosystems, health care, climate change, disaster risk reduction and emergency response, energy, navigation, seismic monitoring, management of natural resources, biodiversity, agriculture and food security.

7. Under a special theme on marine and coastal ecosystems, the Committee noted a feasibility study undertaken in Canada, under which a microsatellite would assess the health of coastal and inland waters by providing ecological information on coastal waters; monitoring hazards, discharges, effluents and pollution events; assessing the well-being of marine coastal ecosystems; and detecting, monitoring and predicting harmful algal blooms.

8. The Committee commended the Secretariat for continuously providing an update on the implementation of the outcomes of the United Nations Conference on Sustainable Development at the intergovernmental level and the formulation of the post-2015 development agenda, as contained in conference room papers A/AC.105/2013/CRP.7, A/AC.105/2014/CRP.15 and A/AC.105/C.1/2014/CRP.21.

9. The Committee encouraged member States to liaise nationally with their respective authorities and departments responsible for the intergovernmental processes related to the Conference and the post-2015 development agenda in order to promote the inclusion in those processes of the relevance of space science and technology applications and the use of space-derived geospatial data.

10. In this connection, the Committee recognized the fundamental significance of space-derived information and data for global, regional, national and local management of sustainability, and stressed the need to recognize the contribution of space for the formulation of policies and programmes of action, as well as their subsequent implementation. The Committee therefore made an appeal to the international bodies and institutions responsible for the sustainable development and use of humankind's natural and environmental resources to create adequate patterns of representation and institutional integration of space-related capacities into international, regional, national and local sustainable development processes.

11. The Committee requested the Office for Outer Space Affairs to continue taking an active part in the United Nations System Task Team on the Post-2015 United Nations Development Agenda and other inter-agency mechanisms for the processes related to the United Nations Conference on Sustainable Development and the post-2015 development agenda, within its capacities, in order to promote the inclusion of space-related references and elements in the documentation generated by the United Nations Secretariat under those processes.

12. The Committee endorsed the recommendation of the Scientific and Technical Subcommittee at its fifty-first session (A/AC.105/1065, annex I, para. 3)

relating to the discussion paper submitted by Japan entitled "Draft proposed workplan for a mechanism of cooperative deliberation for 'space and sustainable development': bridging the Committee on the Peaceful Uses of Outer Space and the Scientific and Technical Subcommittee" (A/AC.105/C.1/2014/CRP.22).

13. The Committee agreed in that regard that the method of work under the multi-year workplan would be revisited by the Working Group of the Whole at the fifty-second session of the Scientific and Technical Subcommittee. The Committee agreed to request the Secretariat to present for the Subcommittee's fifty-second session, in consultation with the delegation of Japan, a conference room paper outlining a proposed method of work under the multi-year workplan for consideration by the Working Group of the Whole, taking into account the status of the two parallel global processes in New York and the role of the outcome document of the United Nations Conference on Sustainable Development, in view of the forthcoming sustainable development goals and the post-2015 development agenda process.

14. The view was expressed that the synchronicity of the post-2015 development agenda process parallel to the post-2015 framework for disaster risk reduction and the development and planned adoption of the climate change agreement in Paris in 2015 opened up valuable possibilities of harmonization and simplification.

15. The view was expressed that the Committee should appeal to the organs and bodies with global responsibilities for sustainability to institutionally root the subject of outer space in the pertinent structures, processes and areas of responsibility. That delegation was of the view that the Committee should also appeal to regional organizations to develop, strengthen and integrate space capacities into regional sustainability-related cooperation processes; to national Governments and local authorities to capacitate national and local authorities to work with space in an integrated manner; and to the international space community to recognize the new identity of outer space as being "for the people and with the people".

16. The Committee noted with satisfaction that the Secretariat had established a page on its website dedicated to space and development, which contained documents relating to the use of space technology for sustainable development.

17. The Committee noted the continued role played by the International Space Station in education and outreach to educational communities worldwide.

18. The Committee noted with satisfaction the large number of outreach activities carried out at the regional level for building capacity through education and training in using space science and technology applications for sustainable development. The Committee noted with appreciation the role played by the regional centres for space science and technology education, affiliated to the United Nations, in space-related education.

19. The Committee noted the information provided by States on their actions and programmes aimed at increasing awareness and understanding in society of the applications of space science and technology for meeting development needs.

20. The Committee took note of a number of space-related conferences, competitions, exhibitions, symposiums and seminars worldwide connecting

educators and students and providing them with training and educational opportunities.

F. Space and water

21. The Committee considered the agenda item entitled "Space and water", in accordance with General Assembly resolution 68/75.

22. The representatives of Egypt, India, Iraq, Japan, the Republic of Korea, the Syrian Arab Republic and the United States made statements under the item. A statement was also made by the representative of Chile on behalf of the Group of Latin American and Caribbean States. During the general exchange of views, statements relating to the item were also made by other member States.

23. The Committee heard the following presentations:

(a) "Use of Earth observation data for water resources assessment and management in India", by the representative of India;

(b) "Water resource management in Syria", by the representative of the Syrian Arab Republic.

24. In the course of the discussion, delegations reviewed national and cooperative water-related activities, giving examples of national programmes and bilateral, regional and international cooperation.

25. The Committee noted that water-related issues were becoming some of the most critical environmental problems facing humankind, often entailing political implications, and that the conservation and proper utilization of existing water resources were of paramount importance for sustaining life on Earth. In that connection, space-derived data could support policymakers in making informed decisions on water resources management.

26. The Committee noted the large number of space-borne platforms that addressed water-related issues and that space-derived data were used extensively in water management. The Committee also noted that space technology and applications, combined with non-space technologies, played an important role in addressing many water-related issues, including understanding and observation of global water cycles and unusual climate patterns, mapping of water courses, monitoring and mitigation of the effects of floods, droughts and earthquakes and improvement of the timeliness and accuracy of forecasts.

27. The Committee noted with satisfaction the successful completion of the third International Conference on the Use of Space Technology for Water Management, jointly organized by the United Nations, Morocco and PSIPW, and co-sponsored by ESA, ISNET and GEO, which was held in Rabat from 1 to 4 April 2014. The Committee further noted that the Conference had provided a valuable platform for scientists, researchers and subject experts from around the world to discuss cooperation, capacity-building and future challenges for water resource management.

28. The Committee also noted with satisfaction the successful completion of the Central American expert meeting on the use of space-based information in early

warning systems in San Salvador, from 30 March to 1 April 2014, and also noted that the improvement of early warning systems operated at the national and local-community levels was important for mitigating flood- and water-related risks to vulnerable populations, and for developing effective responses to natural disasters.

29. The Committee noted that the Asian Water Cycle Initiative, a GEO endeavour, was developing an information system of systems to promote the implementation of integrated water resources management through the integration and sharing of data as a basis for appropriate decision-making with regard to national water policies in 20 Asian countries. The Committee further noted that the first Global Earth Observation System of Systems (GEOSS) Joint Asia-Africa Water Cycle Symposium, organized by the University of Tokyo and GEO, had been held in Tokyo from 25 to 27 November 2013, focusing on the coordination and common approaches of activities for addressing integrated water resource management in the context of climate change.

G. Space and climate change

30. The Committee considered the agenda item entitled "Space and climate change", in accordance with General Assembly resolution 68/75.

31. The representatives of Egypt, India, Japan, Mexico, Portugal and the United States made statements under the item. A statement was also made by the representative of Chile on behalf of the Group of Latin American and Caribbean States. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

32. The Committee noted that climate change was an urgent issue and one of the greatest challenges of our time. It was a cross-cutting issue that negatively affected all regions of the world, especially developing countries, through a variety of processes such as global warming, global sea-level rise, melting of sea ice in polar caps and glaciers and more intense weather and climate events, including droughts, extra-tropical storms and tropical cyclones, which led to heavier floods and landslides. In that regard, the Committee noted that climate change represented a significant challenge to achieving sustainable development.

33. The Committee recognized that it had an important role to play and should devote more attention to promoting the use of space applications for adaptation to climate change in order to minimize its adverse impacts and to take advantage of opportunities made available by the space community, particularly in the most vulnerable sectors, namely water resources, agriculture, forests and coastal zones, and in the reduction of risks associated with disasters of natural causes.

34. The Committee noted that satellite observations and space-derived data were key tools to monitor the effects of climate change and its impacts on bio-geophysical systems and socioeconomic sectors. Space observations had provided critical information for understanding and modelling the Earth system and would play a larger role as additional indicators of climate change were documented. Together with ground-based observations, space-derived data provided an integrated perspective on the changing environment of the Earth and an

understanding of the implications of global climate change for humankind. In that regard, the Committee noted that satellite data were also crucial in the development of international assessments, such as the fifth assessment report of the Intergovernmental Panel on Climate Change (IPCC).

35. The Committee recognized the importance of such initiatives as Space Applications for Environment (SAFE), established through the activities of APRSAF, to encourage environmental monitoring for climate change mitigation and adaptation studies using space applications.

36. The Committee noted efforts to support activities related to climate change conducted by GEO and the Committee on Earth Observation Satellites (CEOS), and contributions to the global climate change mitigation and adaptation actions under the United Nations Framework Convention on Climate Change and the United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa.

37. The Committee noted activities of member States on the use of satellites to monitor emissions of greenhouse gases and aerosols, to measure carbon dioxide and methane and several other essential climate variables, and to monitor forests, oceans and droughts. The Committee noted that satellites launched by many nations since the early 1970s had documented long-term global indicators of climate change and were revealing alarming global trends.

38. The Committee noted that several member States had launched or planned to launch Earth observation satellites to track the manifestations and effects of climate change. The Committee also noted a number of cooperative efforts between the space agencies of several countries to launch satellites to monitor the impact of climate change and the parameters related to it.

39. The view was expressed that the Committee could contribute to strengthening the capacity of member States in the use of space science and technology and space applications to monitor the impacts of and adaptation to climate change in various systems and sectors. Deliberations in the Committee were also seen as essential for enhancing global cooperation in information-sharing and in the use of space technology for understanding and managing the challenge of climate change.

H. Use of space technology in the United Nations system

40. The Committee considered the agenda item entitled "Use of space technology in the United Nations system", in accordance with General Assembly resolution 68/75.

41. The representatives of Japan and Germany made statements under the item. The observers for ESCAP and ESCWA also made statements. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

42. The Committee heard a presentation entitled "Promoting regional cooperation for effective use of space technology for sustainable development in Asia and the Pacific", by the observer for ESCAP.

43. The Director of the Office for Outer Space Affairs made a statement informing the Committee about the outcomes of the thirty-fourth session of the United Nations Inter-Agency Meeting on Outer Space Activities (UN-Space), held in New York on 13 and 14 May 2014. The Committee had before it the report of the Inter-Agency Meeting on that session (A/AC.105/1064).

44. The Committee noted that the UN-Space session had been held in conjunction with the fourteenth plenary meeting of the United Nations Geographic Information Working Group (UNGIWG). The Committee also noted that a joint UN-Space — UNGIWG meeting had been held in the afternoon on 14 May 2014.

45. The Committee welcomed with appreciation the report of the Secretary-General on the coordination of space-related activities within the United Nations system: directions and anticipated results for the period 2014-2015 — addressing the post-2015 development agenda (A/AC.105/1063). The Committee noted the recommendations on harnessing space technology for the attainment of objectives of the post-2015 development agenda, contained in paragraph 78 (a)-(e) of that report.

46. The Committee welcomed the agreement of UN-Space that its next special report, to be prepared in 2015, should address the theme of space for global health. The Committee recalled that previous special reports of the Inter-Agency Meeting covered the following themes: "New and emerging technologies, applications and initiatives for space-related inter-agency cooperation" (A/AC.105/843), "Space benefits for Africa: contribution of the United Nations system" (A/AC.105/941), "Space and climate change" (A/AC.105/991) and "Space for agriculture development and food security" (A/AC.105/1042).

47. The Committee noted that UN-Space has adopted a flexible approach to the setting of its agenda in order to be more adaptive to present needs and interests of participating United Nations entities. The Committee also noted that UN-Space had decided to include in the agenda for its next session, in 2015, an exchange of views and information on the report of the Group of Governmental Experts on Transparency and Confidence-Building Measures in Outer Space Activities (A/68/189), pertaining to the coordination of activities of United Nations entities, in line with the overall recommendations of the report as endorsed by the General Assembly in its resolution 68/50.

48. The Committee noted with satisfaction that the eleventh open informal session of the Inter-Agency Meeting on Outer Space Activities had been held by the Office for Outer Space Affairs in New York on 14 May 2014, focusing on the theme "Engaging space tools for development on Earth — contribution of space technology and applications to the post-2015 development agenda" (see A/AC.105/2014/CRP.9).

49. The Committee noted that the open informal session had provided a multidimensional perspective on examples of how the wide range of space technology applications, involving Earth observation, global navigation satellite systems, telecommunication and telemedicine, as well as other sources of geospatial information, were being used as enablers and means of implementation of sustainable development objectives, including the improvement of the resilience of populations and infrastructures, and in carrying out the post-2015 development agenda process. The Committee encouraged member States to continue to participate actively in the open informal sessions of the Inter-Agency Meeting.

50. The Committee noted the cooperative efforts between member States and United Nations entities to promote the use of space technology to resolve global issues faced by humanity, including in building nations' resilience to multiple shocks. In that connection, the Committee took note of the Asia-Pacific Plan of Action for Applications of Space Technology and Geographic Information Systems for Disaster Risk Reduction and Sustainable Development, 2012-2017, adopted by ESCAP at its sixty-ninth session, as well as activities under the ESCWA subprogramme on information and communication technology for regional integration.

51. The Committee noted that ESCAP would organize a ministerial conference to evaluate the progress made in implementing the Asia-Pacific Plan of Action for Applications of Space Technology and Geographic Information Systems for Disaster Risk Reduction and Sustainable Development, 2012-2017. The Committee further noted that the first regional expert group meeting on space and satellite technologies for development in the Arab region would be organized by ESCWA in 2015.

52. The Committee noted that the thirty-fifth session of UN-Space could be organized jointly with UNGIWG and/or the Secretariat for the United Nations Initiative on Global Geospatial Information Management (GGIM); or could be hosted by ESCAP if held in conjunction with a meeting of the Commission involving its member States. In this regard, the Committee noted with appreciation the proposal of ESCAP to host the thirty-fifth session, in 2015. The Committee noted that the Office for Outer Space Affairs, in its capacity as the secretariat of the Inter-Agency Meeting, would identify, in the intersessional period, the host of the thirty-fifth session of UN-Space.

53. The Committee agreed that if it were not possible to hold the thirty-fifth session of UN-Space before the holding of the fifty-eighth session of the Committee in 2015, the UN-Space report on its thirty-fifth session should be made available to the Committee at its session in 2016.

54. The Committee requested that the Office for Outer Space Affairs to further promote, through United Nations entities, increased practical application of space science and technology for development, in view of the catalytic role that such application could play for development in the post-2015 context.